Delta Hydrologic Trends

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Data presented here are from the DAYFLOW database for water years 1956-1994 and from the DWR Operations and Maintenance database for water year 1995.

Figure 1 contains plots of delta inflow, net delta outflow index, and SWP/CVP export pumping rates for October 1, 1994, to December 31, 1995. Over this period, net delta outflow averaged about 49,600 cfs, with a peak of about 353,000 cfs in mid-March 1995 resulting from high delta inflow and precipitation. Average export rates were 3,700 cfs for the CVP and 3,000 cubic feet per second for the SWP. In March and early April, SWP pumping was stopped because all reservoirs were full. In November and December, pumping was limited to a few hundred cubic feet per second because of major repair to the California Aqueduct.

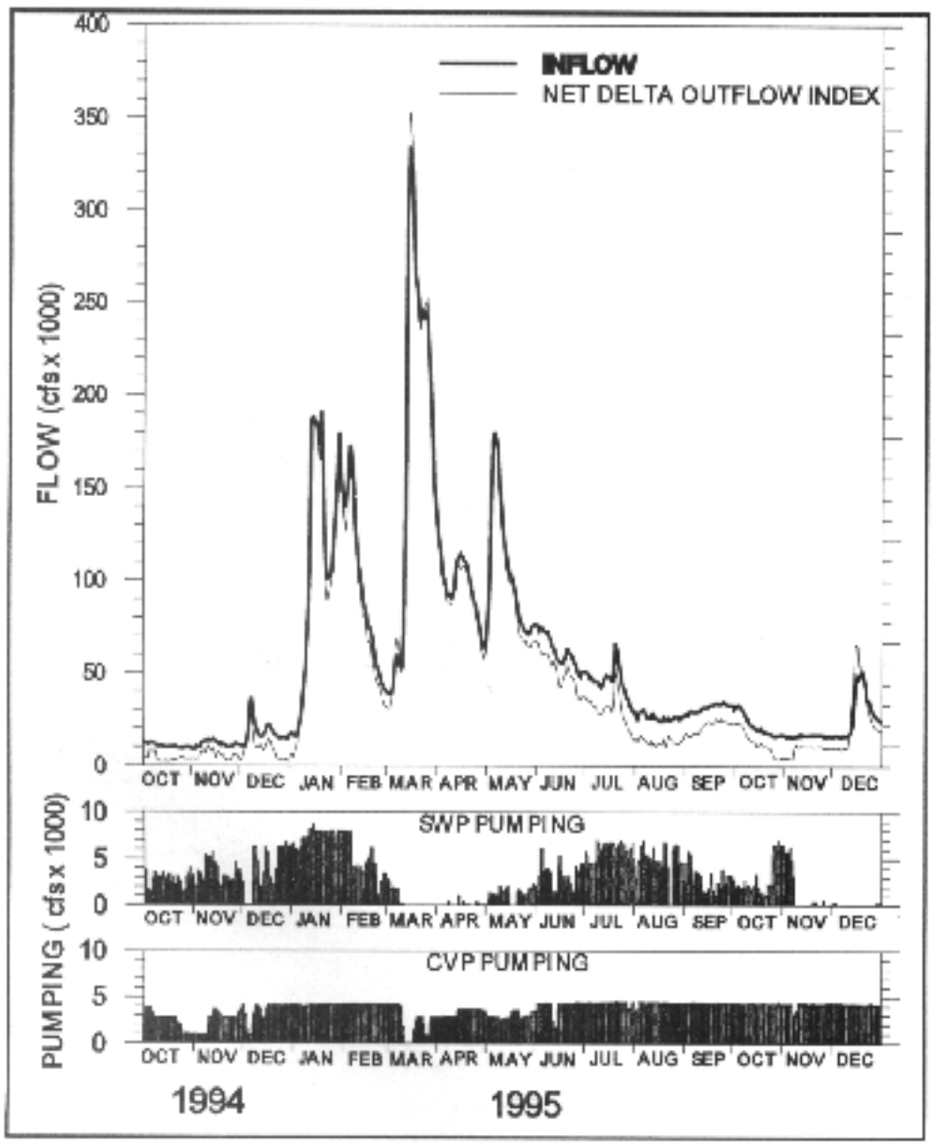

Figure 1
Delta Inflow, Net Delta Outflow, and Export Pumping Rates, October 1994 - December 1995

Figure 2 shows annual delta inflow, outflow, and export volumes for water years 1956-1995. During water year 1995, annual volumes entering the delta were about 28 MAF from the Sacramento River, 6.4 MAF from the San Joaquin River, and 10.8 MAF from the Yolo Bypass.

Figure 3 contains volume-frequency plots for flows and exports shown in Figure 2. In comparing 1995 to the other 39 water years, 93% of the years had Sacramento River flows equal to or less than 1995 flows; 95% of the years had San Joaquin River flows equal to or less than 1995 flows, and 98% of the years had Yolo Bypass flows equal to or less than 1995 flows.

During water year 1995, total delta inflow was about 47 MAF, and net delta outflow was about 41.9 MAF. As shown in Figure 3, 98% of the years had total delta inflow equal to or less than 1995 inflow, and 95% of the years had net delta outflow equal to or less than 1995 outflow.

During water year 1995, annual export pumping was about 2.4 MAF for the SWP, 2.6 MAF for the CVP, and 5 MAF combined. As shown in Figure 3, 71% of the years had SWP pumping equal to or less than 1995 pumping, 80% had CVP pumping equal to or less than 1995 pumping, and 88% had combined CVP/SWP pumping equal to or less than 1995 pumping.

Figure 4 contains multiple bar and frequency plots of mean percent of inflow diverted for specified periods in 1956-1995. As defined in the May 1995 Draft Water Quality Control Plan, the percent of inflow diverted is equal to the sum of SWP and CVP pumping divided by delta inflow. During water year 1995, the mean percent of inflow diverted for October-September was about 11%, October-January was about 20%, February-June was about 5%, and July-September was about 26%.

Figure 5 shows that 40% of the years had mean percent of inflow diverted equal to or less than 1995 for October- September, 65% had equal to or less than 1995 for October-January, 18% had equal to or less than 1995 for February-June, and 35% had equal to or less than 1995 for July-September.